



February 5, 2013

## Smoking and Mental Illness

The mental illness estimates presented in this publication may differ from estimates in other publications due to revisions to the mental illness estimation methods in 2013. For more information, see "Revised Estimates of Mental Illness from the National Survey on Drug Use and Health" at <http://samhsa.gov/data/default.aspx>.

### In Brief

- Use of cigarettes in the past month was more likely among adults with mental illness than among those who did not have mental illness (36.1 vs. 21.4 percent)
- Among adults with mental illness who had ever smoked daily in their lifetime, two thirds (66.0 percent) smoked in the past 30 days, compared with less than half (47.4 percent) of adults with no mental illness who had ever smoked daily in their lifetime
- The average number of cigarettes smoked in the past month was higher among adult smokers who had mental illness than among smokers who did not have mental illness (331 vs. 310 cigarettes)

Tobacco use continues to be the leading cause of preventable death in the United States.<sup>1,2</sup> Despite increased evidence provided in the 2010 Surgeon General's report that cigarette smoking causes disease and that no level of cigarette use is safe,<sup>3</sup> rates of cigarette use among certain groups of Americans remain high. One group with cigarette use that has garnered both increased attention and concern over the past decade is persons with mental illness. Previous research has shown that rates of cigarette use among persons with mental illness have been significantly higher than rates among persons who do not have mental illness.<sup>4,5</sup> This report uses data from the 2009 to 2011 National Surveys on Drug Use and Health (NSDUH) to provide up-to-date information on the relationship between smoking and mental illness.

NSDUH asks persons aged 18 or older if they ever smoked part or all of a cigarette. Respondents who had smoked are asked if they smoked in the past 30 days, the average number of cigarettes they used on days they smoked in the past 30 days, and if they ever had smoked daily. NSDUH also asks adult respondents questions about past year psychological symptoms in order to determine if they had any mental illness (AMI) in the past year. AMI among adults aged 18 or older is defined as having had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) of sufficient duration to meet diagnostic criteria specified within the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) during the year prior to the survey interview.<sup>6</sup> An estimated 19.9 percent of adults had AMI.

This issue of *The NSDUH Report* compares past month cigarette use among adults with past year AMI to use among those with no past year mental illness. The report also includes a comparison of the prevalence of smoking cessation among adults with past year AMI with those with no past year mental illness. All findings presented in this report are annual averages based on combined 2009 to 2011 NSDUH data.

### Past Month Cigarette Use by Any Mental Illness

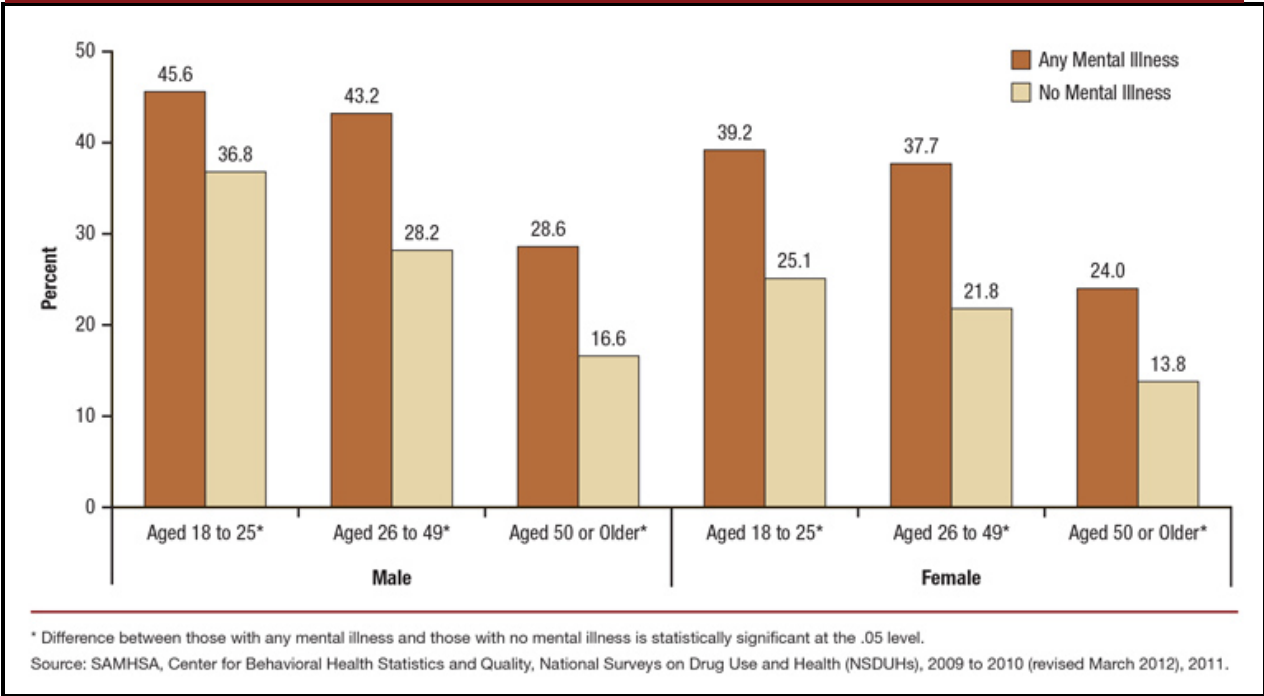
About 1 in 4 adults aged 18 or older (24.3 percent; 55.9 million persons) smoked cigarettes in the month prior to the survey. However, adults with past year AMI were more likely to have smoked than those without mental illness (36.1 vs. 21.4 percent) (Table 1). The association between cigarette use and mental illness was found among both genders and among age groups (Table 1), as well as among age groups within both genders (Figure 1). For example, 45.6 percent of males aged 18 to 25 with AMI smoked in the past month, compared with 36.8 percent of males aged 18 to 25 without mental illness. Among females in this age group, 39.2 percent of those with AMI smoked in the past month, compared with 25.1 percent of those with no mental illness.

**Table 1. Cigarette Use among Adults Aged 18 or Older, by Any Mental Illness in the Past Year and Demographic Characteristics: 2009 to 2011**

Mental Illness and Smoking Status	Total	Aged 18 to 25	Aged 26 to 49	Aged 50 or Older	Male	Female
Percentage Who Smoked in the Past Month: Any Mental Illness	36.1%*	41.8%*	39.9%*	25.7%*	39.6%*	33.8%*
Percentage Who Smoked in the Past Month: No Mental Illness	21.4%	31.4%	25.1%	15.1%	24.4%	18.4%
Percentage of Lifetime Daily Smokers Who Smoked in Last Month: Any Mental Illness	66.0%*	85.9%*	72.2%*	46.8%*	66.5%*	65.7%*
Percentage of Lifetime Daily Smokers Who Smoked in Last Month: No Mental Illness	47.4%	82.4%	60.3%	32.2%	46.9%	48.1%
Number of Cigarettes Smoked in the Past Month: Any Mental Illness	331*	202*	351*	441*	347*	320*
Number of Cigarettes Smoked in the Past Month: No Mental Illness	310	176	304	399	327	288

\* Difference between those with any mental illness and those with no mental illness is statistically significant at the .05 level.  
Source: SAMHSA, National Surveys on Drug Use and Health (NSDUHs), 2009 to 2010 (revised March 2012), 2011.

**Figure 1. Past Month Cigarette Use among Adults Aged 18 or Older, by Any Mental Illness in the Past Year and Gender, by Age Group: 2009 to 2011**



**Figure 1 Table. Past Month Cigarette Use among Adults Aged 18 or Older, by Any Mental Illness in the Past Year and Gender, by Age Group: 2009 to 2011**

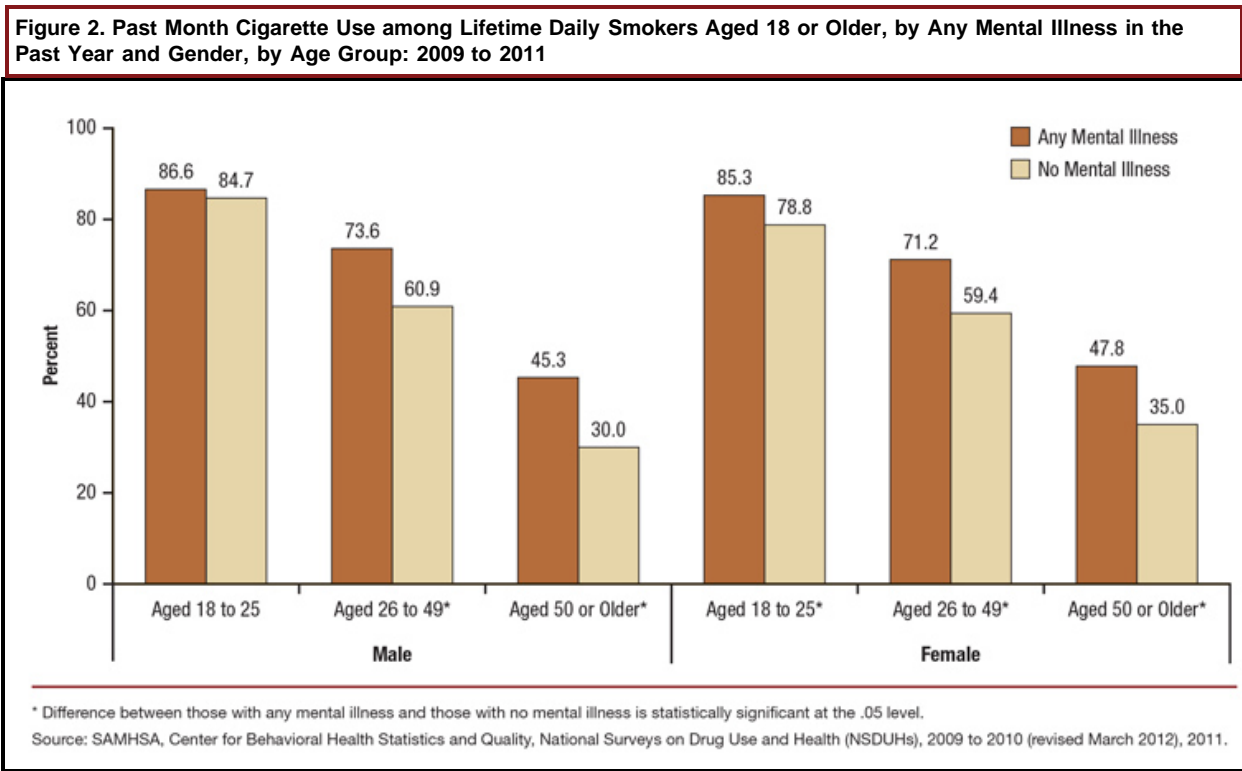
Status	Male			Female		
	Aged 18 to 25*	Aged 26 to 49*	Aged 50 or Older*	Aged 18 to 25*	Aged 26 to 49*	Aged 50 or Older*
Any Mental Illness	45.6%	43.2%	28.6%	39.2%	37.7%	24.0%
No Mental Illness	36.8%	28.2%	16.6%	25.1%	21.8%	13.8%

\* Difference between those with any mental illness and those with no mental illness is statistically significant at the .05 level.  
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2009 to 2010 (revised March 2012), 2011.

## Smoking Cessation, by Any Mental Illness

Rates of past month cigarette use among those who had smoked daily at some time in their lives (hereafter referred to as "lifetime daily smokers") indicate how smoking cessation has varied across population groups. High rates of past month cigarette use among lifetime daily smokers in specific population groups indicate that few people in those groups have quit smoking.

Two thirds (66.0 percent) of lifetime daily smokers with past year AMI smoked in the past month, compared with less than half (47.4 percent) of lifetime daily smokers without mental illness (Table 1). The association between past month cigarette use among lifetime daily smokers and mental illness was found among both genders and among age groups. With one exception, this pattern was also found among both age groups within both genders (Figure 2). For example, 73.6 percent of male lifetime daily smokers aged 26 to 49 with AMI smoked in the past month, compared with 60.9 percent of same-aged male lifetime daily smokers without mental illness. Among females in this age group, 71.2 percent of those with AMI smoked in the past month, compared with 59.4 percent of those with no mental illness. The single exception to this pattern was found among males aged 18 to 25; in this age group, male lifetime smokers with and without AMI were equally likely to have smoked in the past month.



**Figure 2 Table. Past Month Cigarette Use among Lifetime Daily Smokers Aged 18 or Older, by Any Mental Illness in the Past Year and Gender, by Age Group: 2009 to 2011**

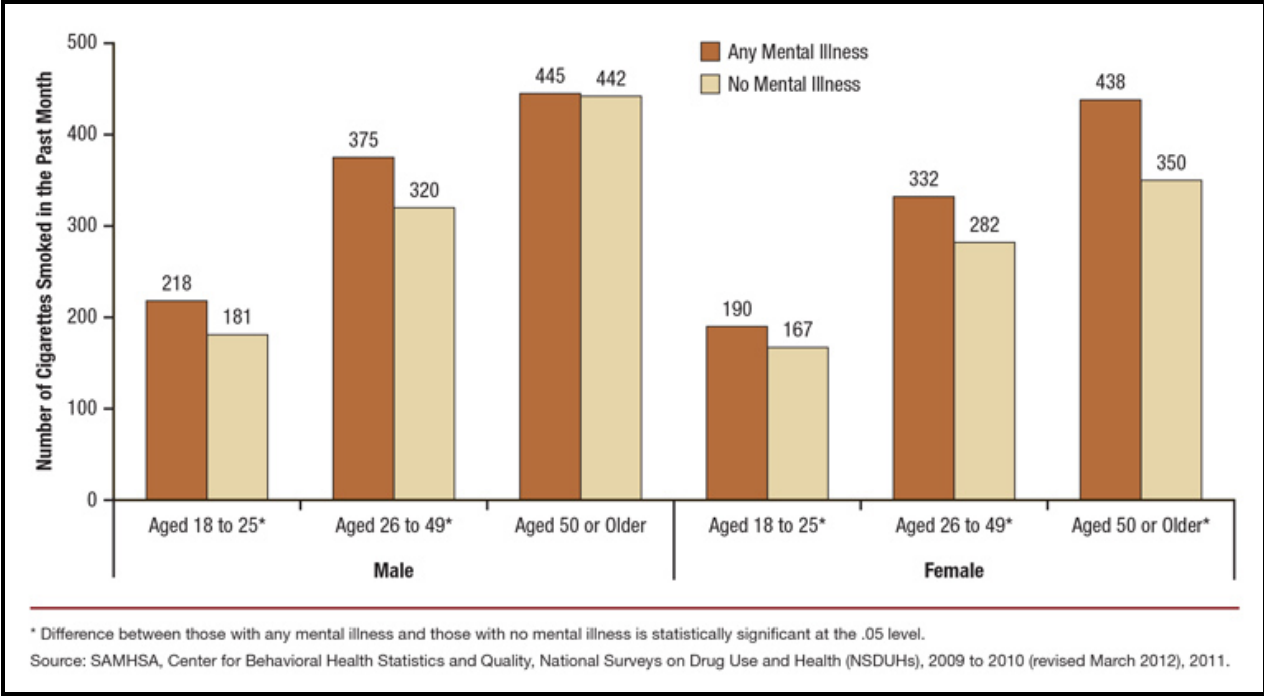
Status	Male			Female		
	Aged 18 to 25	Aged 26 to 49*	Aged 50 or Older*	Aged 18 to 25*	Aged 26 to 49*	Aged 50 or Older*
Any Mental Illness	86.6%	73.6%	45.3%	85.3%	71.2%	47.8%
No Mental Illness	84.7%	60.9%	30.0%	78.8%	59.4%	35.0%

\* Difference between those with any mental illness and those with no mental illness is statistically significant at the .05 level.  
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2009 to 2010 (revised March 2012), 2011.

## Number of Cigarettes Smoked in Past Month, by Any Mental Illness

Overall, the average number of cigarettes smoked in the past month was higher among adults aged 18 or older with past year AMI than among those who did not have AMI (331 vs. 310 cigarettes). For both genders and age groups, the number of cigarettes smoked was greater among those with AMI than among those without (Table 1). This pattern was also generally seen for age groups within both genders (Figure 3). For example, male smokers aged 18 to 25 with AMI smoked a greater number of cigarettes in the past month than those without mental illness (218 vs. 181 cigarettes). In the same age group, female smokers with AMI smoked an average of 190 cigarettes per month, whereas those without mental illness smoked an average of 167 cigarettes per month. The single exception to this pattern was among males aged 50 or older; for this group, the average number of cigarettes smoked was similar for current smokers with and without AMI.

**Figure 3. Average Number of Cigarettes Smoked in the Past Month among Past Month Smokers Aged 18 or Older, by Any Mental Illness in the Past Year and Gender, by Age Group: 2009 to 2011**



**Figure 3 Table. Average Number of Cigarettes Smoked in the Past Month among Past Month Smokers Aged 18 or Older, by Any Mental Illness in the Past Year and Gender, by Age Group: 2009 to 2011**

Status	Male			Female		
	Aged 18 to 25*	Aged 26 to 49*	Aged 50 or Older	Aged 18 to 25*	Aged 26 to 49*	Aged 50 or Older*
Any Mental Illness	218	375	445	190	332	438
No Mental Illness	181	320	442	167	282	350

\* Difference between those with any mental illness and those with no mental illness is statistically significant at the .05 level.  
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2009 to 2010 (revised March 2012), 2011.

Discussion

National, State, and local smoking cessation campaigns have resulted in a significant reduction in the number of Americans who smoke. Although smoking has decreased, certain groups, such as persons with mental illness, have higher rates of smoking than the general population. The data from NSDUH indicate that adults with past year mental illness are more likely to be current smokers and less likely to have stopped smoking than adults who did not experience mental illness in the past year. Likewise, current smokers with past year mental illness smoke more cigarettes, on average, than do those without past year mental illness. Policymakers, mental health practitioners, and public health service providers can use this information to better understand and address the needs of this group to make progress in lowering the rates of smoking among persons with mental illness.

End Notes

1 U.S. Department of Health and Human Services. (2004). *The health consequences of smoking: A report of the Surgeon General*. Washington, DC: U.S. Government Printing Office.

2 Centers for Disease Control and Prevention. (2008). Smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000-2004. *Morbidity and Mortality Weekly Report*, 57, 1226-1228.

3 U.S. Department of Health and Human Services. (2010). *How tobacco smoke causes disease: The biology and behavioral basis for smoking-attributable disease: A report of the Surgeon General*. Washington, DC: U.S. Government Printing Office.

<sup>4</sup> McClave, A. K., McKnight-Eily, L. R., Davis, S. P., & Dube, S. R. (2010). Smoking characteristics of adults with selected lifetime mental illnesses: Results from the 2007 National Health Interview Survey. *American Journal of Public Health, 100*, 2464-2472.

<sup>5</sup> Lasser, K., Boyd, J. W., Woolhandler, S., Himmelstein, D. U., McCormick, D., & Bor, D. H. (2000). Smoking and mental illness: A population-based prevalence study. *JAMA: Journal of the American Medical Association, 284*, 2606-2610.

<sup>6</sup> American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

**Suggested Citation**

Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (February 5, 2013). *The NSDUH Report: Smoking and Mental Illness*. Rockville, MD.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The combined 2009 to 2011 data used in this report are based on information obtained from 138,000 adults aged 18 or older. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

*The NSDUH Report* is prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on the most recent NSDUH is available in the following publication:

Center for Behavioral Health Statistics and Quality. (2012). *Results from the 2011 National Survey on Drug Use and Health: Summary of national findings* (HHS Publication No. SMA 12-4713, NSDUH Series H-44). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.samhsa.gov/data/NSDUH.aspx>.